

### **Abstract of the Disclosure**

An OCT technique enabling tomography observation of a portion of an organism difficult to constrain and a tomography observation technique for observation of a constrainable portion while eliminating the burden on the organism without constrain are disclosed. A variable-wavelength light generator (variable-wavelength light source) is used as a light source of a light interference tomography. The variable-wavelength light generator has a variable range of wave number of  $4.7 \times 10^{-2} \mu\text{m}^{-1}$  or more and a frequency width of the output light of 13 GHz or less, and includes a means for changing stepwise the wave number at wave number intervals of  $3.1 \times 10^{-4} \mu\text{m}^{-1}$  or less and at time intervals of 530  $\mu\text{s}$  or less.